

What is claimed is:

1        1.        Apparatus for creating an unobstructed opening and for sealing along an  
2        edge of a notch within a barrier plate extending across a lower portion of a  
3        passageway covered by a sliding door movable between open and closed  
4        positions, wherein the apparatus comprises:

5                a compression panel,

6                a carrier bracket attached to the sliding door, wherein the compression  
7        panel is mounted on the carrier bracket to be moved with the sliding door and to  
8        be movable toward the barrier plate and away from the barrier plate;

9                a compressible gasket, disposed between the compression panel and the  
10       barrier plate to extend adjacent the notch with the sliding door in the closed  
11       position; and

12               an actuator, disposed adjacent the compression panel with the sliding  
13       door in the closed position, mounted to move between a disengaged position and  
14       an engaged position, wherein movement of the actuator into the engaged  
15       position with the sliding door in the closed position causes the compression panel  
16       to be moved in contact with the actuator toward the barrier plate, compressing  
17       the compressible gasket between the compression panel and the barrier plate,  
18       and wherein movement of the actuator into the disengaged position with the  
19       sliding door in the closed position allows movement of the compression panel in  
20       contact with the actuator away from the barrier plate, releasing compression of  
21       the compressible gasket between the compression panel and the barrier plate.

1        2.        The apparatus of claim 1, wherein

2               said actuator includes an elongated member extending adjacent said  
3       compression panel with said sliding door in said closed position,

4               said apparatus additionally includes stationary ramps disposed adjacent  
5       opposite ends of the elongated member,

6               said actuator moves along the stationary ramps between said disengaged

7 position and said engaged position, and  
8 the stationary ramps are inclined to move said actuator toward said barrier  
9 plate in contact with said compression panel with said sliding door in said closed  
10 position as said actuator is moved into said engaged position.

1 3. The apparatus of claim 2, wherein said actuator additionally includes:  
2 a first pair of rollers rotatably mounted on said elongated member to roll in  
3 contact with said stationary ramps; and  
4 a second pair of rollers rotatably mounted on said elongated member to  
5 roll in contact with said compression panel.

1 4. The apparatus of claim 1, wherein  
2 said apparatus includes a first pair of spaced apart rollers mounted to  
3 rotate about stationary axes,  
4 said compression panel includes a second pair of rotatably mounted  
5 rollers,  
6 each of said rollers in said second pair of rollers is aligned with a roller in  
7 said first pair of rollers with said sliding door in said closed position,  
8 said actuator includes an elongated member extending between said first  
9 and second pairs of rollers with said sliding door in said closed position,  
10 said elongated member includes a pair of ramp portions moving between  
11 said first and second pairs of rollers with said sliding door in said closed position  
12 to move said compression panel toward said barrier plate as said actuator is  
13 moved into said engaged position.

1 5. The apparatus of claim 1, additionally comprising:  
2 a latch lever pivotally mounted adjacent said passageway covered by said  
3 sliding door;  
4 a flexible member extending between the latch lever and said actuator to  
5 move said actuator between said disengaged position and said engaged position

6 with rotation of the latch lever; and  
7 an actuator spring, attached to said actuator, maintaining tension within  
8 the flexible member.

1 6. The apparatus of claim 5, wherein said latch lever includes a locking pawl  
2 moving into a position preventing movement of said sliding door from said closed  
3 position as said latch lever is moved to move said actuator into said engaged  
4 position.

1 7. The apparatus of claim 1, wherein said compressible gasket is attached to  
2 a surface of said compression panel adjacent said barrier plate.

1 8. The apparatus of claim 1, wherein said compressible gasket is attached to  
2 said barrier plate.

1 9. The apparatus of claim 1, additionally comprising at least one spring  
2 extending between said compression panel and said carrier bracket to move said  
3 compressible gasket away from said upstanding leg of said barrier plate.

1 10. The apparatus of claim 1, wherein said actuator extends inwardly adjacent  
2 said sliding door, and  
3 said apparatus additionally comprises a stationary cover extending over  
4 said actuator.

1 11 The apparatus of claim 1, wherein said actuator includes:  
2 a pair of arms pivotally mounted on stationary pivots;  
3 a connecting link pivotally mounted on each of the arms to extend  
4 between the arms, and  
5 a pair of rollers mounted to roll in contact with said compression panel with  
6 said sliding door in said closed position, moving said compression panel toward

7        said barrier plate as said actuator is moved into said engaged position.

1        12.    Door apparatus including:

2            a sliding door;

3            a frame mounting the sliding door to move between open and closed  
4 positions, wherein the frame includes a barrier plate having a notch forming a  
5 part of a passageway covered by the sliding door in the closed position;

6            a compression panel;

7            a carrier bracket attached to the sliding door, wherein the compression  
8 panel is mounted within the carrier bracket to be moved with the sliding door and  
9 to be movable toward the barrier plate and away from the barrier plate;

10           a compressible gasket disposed between the compression panel and the  
11 barrier plate to extend adjacent the notch with the sliding door in the closed  
12 position;

13           an actuator, disposed adjacent the compression panel with the sliding  
14 door in the closed position, mounted to move between a disengaged position and  
15 an engaged position, wherein movement of the actuator into the engaged  
16 position with the sliding door in the closed position causes the compression panel  
17 to be moved in contact with the actuator toward the barrier plate, compressing  
18 the compressible gasket between the compression panel and the barrier plate,  
19 and wherein movement of the actuator into the disengaged position with the  
20 sliding door in the closed position allows movement of the compression panel in  
21 contact with the actuator away from the barrier plate, releasing compression of  
22 the compressible gasket between the compression panel and the barrier plate.

1        13.    The door apparatus of claim 12, wherein

2            said actuator includes an elongated member extending adjacent said  
3 compression panel with said sliding door in said closed position,

4            said apparatus additionally includes stationary ramps disposed adjacent  
5 opposite ends of the elongated member,

6           said actuator moves along the stationary ramps between said disengaged  
7 position and said engaged position, and

8           the stationary ramps are inclined to move said actuator toward said barrier  
9 plate in contact with said compression panel with said sliding door in said closed  
10 position as said actuator is moved into said engaged position.

1       14.   The door apparatus of claim 12, wherein

2           said apparatus includes a first pair of spaced apart rollers mounted to  
3 rotate about stationary axes,

4           said compression panel includes a second pair of rotatably mounted  
5 rollers,

6           each of said rollers in said second pair of rollers is aligned with a roller in  
7 said first pair of rollers with said sliding door in said closed position,

8           said actuator includes an elongated member extending between said first  
9 and second pairs of rollers with said sliding door in said closed position,

10          said elongated member includes a pair of ramp portions moving between  
11 said first and second pairs of rollers with said sliding door in said closed position  
12 to move said compression panel toward said barrier plate as said actuator is  
13 moved into said engaged position.

1       15.   The door apparatus of claim 12, additionally comprising:

2           a latch lever pivotally mounted adjacent said passageway covered by said  
3 sliding door;

4           a flexible member extending between the latch lever and said actuator to  
5 move said actuator between said disengaged position and said engaged position  
6 with rotation of the latch lever; and

7           an actuator spring, attached to said actuator, maintaining tension within  
8 the flexible member

1 16. The apparatus of claim 15, wherein said latch lever includes a locking  
2 pawl moving into a position preventing movement of said sliding door from said  
3 closed position as said latch lever is moved to move said actuator into said  
4 engaged position.

1 17. The apparatus of claim 12, additionally comprising at least one spring  
2 extending between said compression panel and said carrier bracket to move said  
3 compressible gasket away from said upstanding leg of said barrier plate.

1 18. The apparatus of claim 12, wherein said actuator extends inwardly  
2 adjacent said sliding door, and  
3 said apparatus additionally comprises a stationary cover extending over  
4 said actuator.

1 19. A method for enlarging a passageway covered by a door sliding within a  
2 frame having a barrier plate extending upward to form a lower edge of the  
3 passageway, wherein the method comprises:

4 cutting a notch within the barrier plate along the lower edge of the  
5 passageway;

6 attaching a carrier bracket to the sliding door,

7 mounting a compression panel on the carrier bracket to be moved with the  
8 sliding door and to be movable toward the barrier plate and away from the barrier  
9 plate;

10 mounting a compressible gasket to be disposed between the compression  
11 panel and the barrier plate to extend adjacent the notch with the sliding door in  
12 the closed position; and

13 mounting an actuator adjacent the compression panel with the sliding  
14 door in the closed position, to move along a stationary surface between a  
15 disengaged position and an engaged position, wherein movement of the actuator  
16 into the engaged position with the sliding door in the closed position causes the

17 compression panel to be moved in contact with the actuator toward the barrier  
18 plate, compressing the compressible gasket between the compression panel and  
19 the barrier plate, and wherein movement of the actuator into the disengaged  
20 position with the sliding door in the closed position allows movement of the  
21 compression panel in contact with the actuator away from the barrier plate,  
22 releasing compression of the compressible gasket between the compression  
23 panel and the barrier plate.

1 20. The method of claim 19, wherein  
2 said actuator includes an elongated member extending adjacent said  
3 compression panel with said sliding door in said closed position,  
4 mounting said actuator to move along a stationary surface includes  
5 attaching a pair of stationary ramps adjacent opposite ends of the elongated  
6 member so that the stationary ramps are inclined to move said actuator toward  
7 said barrier plate in contact with said compression panel with said sliding door in  
8 said closed position as said actuator is moved into said engaged position.

1 21. The method of claim 20, wherein  
2 said apparatus includes a first pair of spaced apart rollers mounted to  
3 rotate about stationary axes,  
4 said compression panel includes a second pair of rotatably mounted  
5 rollers,  
6 each of said rollers in said second pair of rollers is aligned with a roller in  
7 said first pair of rollers with said sliding door in said closed position,  
8 said actuator includes an elongated member extending between said first  
9 and second pairs of rollers with said sliding door in said closed position,  
10 said elongated member includes a pair of ramp portions moving between  
11 said first and second pairs of rollers with said sliding door in said closed position  
12 to move said compression panel toward said barrier plate as said actuator is  
13 moved into said engaged position.

1        22.    The method of claim 19, additionally comprising:

1                pivotally mounting a latch lever adjacent said passageway covered by said  
2 sliding door;

3                attaching a flexible member to extend between the latch lever and said  
4 actuator to move said actuator between said disengaged position and said  
5 engaged position with rotation of the latch lever; and

6                attaching an actuator spring to extend between a stationary surface and  
7 said actuator to maintain tension within the flexible member.  
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